

Remarks

Applicants have canceled claims 2-12, 14, 15, 21, and 23 without prejudice or disclaimer and added new claims 24-53. No new matter has been added.

Upon entry of the present amendment, claims 1, 13, 16-20, 22, and new claims 24-53 will be pending.

I. Amendment of the Claims

Claims 2-12, 14, 15, 21, and 23 have been canceled without prejudice or disclaimer in favor of new claims 24-53 in order to claim additional embodiments of the subject matter of the provisionally-elected group (e.g., Gene No. 60, see page 121-122 of the specification).

New claims 24-53 find support in the claims as originally filed and throughout the specification. Specifically, support for new claims 24-53 can be found, for example, at page 121, line 10 to page 122, line 22; and at Table 1, page 140, row 7, as indicated as "Gene No. 60". Support for new claims 24 and 29 can be found, for example, at page 142, lines 19-29; and at page 144, lines 5-9. Support for new claims 25 and 30 can be found, for example, at page 208, lines 1-8. Support for new claims 26, 31, 36, 41, 46, and 51 can be found, for example, at page 144, lines 19-24; at page 204, line 4 to page 205, line 30; and at Example 9, page 363, line 27 to page 365, line 9. Support for new claims 27, 32, 37, 42, 47, and 52 can be found, for example, at page 197, line 8 to page 198, line 31; and at Example 23. Support for new claims 28, 33, 38, 43, 48, and 53 can be found, for example, at page 144, lines 14-18 and lines 25-32; at page 207, line 19 to page 218, line 5; and at Examples 5-8, page 355, line 4 to page 363, line 25. Support for new claims 29-33 can be found, for example, at page 4, line 26 to page 5, line 2; at

page 142, lines 8-9; and at page 143, lines 18-29. Support for new claims 34-43 can be found, for example, at page 147, lines 23-28, and at page 149, line 22 to page 155, line 3. Support for new claims 44-53 can be found, for example, at page 156, line 8 to page 158, line 23.

Accordingly, no new matter has been added by way of amendment, and entry of the above amendment is therefore respectfully solicited.

Applicants note that the present claimed invention is primarily expressed in human osteoclastoma tissue compared to other tissue libraries tested (*see* page 121, line 20 of the specification). Therefore, the present claimed invention is useful, for example, as a diagnostic marker of bone cancer, in particular, osteoclastomas (*see* page 121, lines 21 to page 122, line 2; and page 122, lines 5-9 of the specification).

II. The Restriction Requirement

Pursuant to Paper No. 10, mailed August 22, 2002, the Examiner has required an election under 35 U.S.C. § 121 of one of Groups I-IX. The Examiner contends that the inventions are distinct each from the other.

In addition, the Examiner contends that each of the Groups as cast by the Examiner reads upon unrelated, patentably distinct sequences and creates an undue search burden. Thus, citing MPEP § 803.04, the Examiner has imposed a further restriction to a single disclosed sequence.

In order to be fully responsive, Applicants provisionally elect, *with traverse*, the invention of Group II, represented by new claims 24-53, drawn to polypeptides of SEQ ID NO:142 and clone ID HOSDK95, for further prosecution. Applicants reserve the right to file one or more divisional applications directed to non-elected inventions should the restriction requirement be made final. Applicants point out that claims 2-12, 14, 15, 21, and 23 have been

canceled without prejudice or disclaimer, and that new claims 24-53 are directed to subject matter falling within the ambit of Group II as cast by the Examiner.

With respect to the Examiner's division of the invention into nine groups and the reasons stated therefore, Applicants respectfully disagree and traverse. Even assuming, *arguendo*, that Groups I-IX represented distinct and independent inventions, restriction remains improper unless it can be shown that the search and examination of all groups would entail a "serious burden." *See* M.P.E.P. § 803. In the present situation, no such showing has been made. Although the Examiner has argued that Groups I-IX are separately classified, Applicants nonetheless submit that a search of the claims of any of the groups would also provide useful information for the claims of the other groups. For example, Applicants submit that a search of polynucleotide claims of the invention would provide useful information for examining claims directed to both polynucleotides and the polypeptides encoded by these polynucleotides. In certain claims this is especially true because the polynucleotide sequence of these claims is defined in part by the polypeptide that the polynucleotide sequence encodes. Further, Applicants point out that, in many if not most publications, where a published nucleotide sequence is an open reading frame, the authors also include, as a matter of routine, the deduced amino acid sequence of the encoded polypeptide.

Similarly, a search of the polypeptide claims of the invention would clearly provide useful information for the examination of claims directed to antibodies either produced in response to or having affinity for the subject polypeptides. This is because antibodies are frequently defined by the antigens that they are produced in response to and the epitopes to which they bind. Moreover, in many publications where an antibody is described, the antigen that it was produced in response to is also described.

Further, searches of publications directed to polynucleotides and the use of those polynucleotides would clearly be overlapping. This is so because in many, if not most, publications which describe polynucleotides, these molecules are described by their function, characterization and/or expression profile. Thus, a search of polynucleotide claims would also provide the Examiner with art directed to the manner in which the claimed polynucleotides could be used in diagnostic and therapeutic indications.

Similarly, searches of publications directed to polypeptides and the use of those polypeptides would clearly be overlapping. This is so because in many, if not most, publications which describe polypeptides, these molecules are described by their function. Thus, a search of polypeptide claims would also provide the Examiner with art directed to the manner in which the claimed polypeptides could be used to treat disease states.

In view of the above, Applicants submit that the searches for polynucleotides, polypeptides, and antibodies; as well as methods of diagnosing, preventing and treating disease states using the nucleic acids and proteins of the subject invention; and methods of identifying a binding partner to a polypeptide of the subject invention; and methods of identifying an activity in a biological assay of the subject invention; and the translational products produced by the methods of identifying an activity in a biological assay wherein said translational products have said activity would clearly be overlapping.

Accordingly, in view of M.P.E.P. § 803, the claims of all of Groups I-IX should be searched and examined together in the present application. Applicants therefore respectfully request that the restriction requirement under 35 U.S.C. § 121 be reconsidered and withdrawn. Applicants retain the right to petition from the restriction requirement under 37 C.F.R. § 1.144.

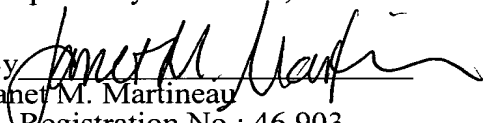
Conclusion

Entry of the above amendment is respectfully solicited. In view of the foregoing remarks, Applicants believe that this application is now in condition for allowance, and an early notice to that effect is urged. The Examiner is invited to call the undersigned at the phone number provided below if any further action by Applicant would expedite the examination of this application.

Finally, if there are any fees due in connection with the filing of this paper, please charge the fees to our Deposit Account No. 08-3425. If a fee is required for an extension of time under 37 C.F.R. § 1.136, such an extension is requested and the appropriate fee should also be charged to our Deposit Account.

Dated: September 19, 2002

Respectfully submitted,

By 
Janet M. Martineau
Registration No.: 46,903
HUMAN GENOME SCIENCES, INC.
9410 Key West Avenue
Rockville, Maryland 20850
(301) 315-2723
Attorney for Applicant

JMM/SA/KC/mlm



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Ruben et al.

Application No.: 09/776,724

Attorney Docket No.: PZ011

Filed: February 6, 2001

Group Art Unit: 1631

For: Human Protein HOSDK95 (as amended)

Examiner: C. Ly

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Title:

The existing title has been amended as follows:

[64] Human [Secreted] Protein[s] HOSDK95

In the Claims:

Claims 2-12, 14, 15, 21, and 23 have been canceled without prejudice or disclaimer.

Claims 24-53 have been added.